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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO. <i>AS</i>
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EXAMINER
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ART UNIT	PAPER NUMBER
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DATE MAILED:

10/1/76

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Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/485,002

Applicant(s)

NAKATA et al

Examiner

Vivian Chen

Art Unit

1773



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 7-24-01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-67 is/are pending in the application.
- 4a) Of the above, claim(s) 18-67 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some\* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Election/Restriction*

1. Applicant's election with traverse of Group I in Paper No. 6 is acknowledged. The traversal is on the ground(s) that the common feature in Groups I-III, V-IX, XI is an blend of aliphatic polyester and a polycaprolactone in specific proportions which are not known in the art. This is not found persuasive because the only *common* feature between Groups I-III, V-IX, X is that they comprise a composition containing both an aliphatic polyester and a polycaprolactone, which is known in the prior art as disclosed by KURODA. For example, Group II requires an additional component (polylactic acid-based resin) not recited in the independent claim for Group I, Group III requires an additional cellulose-based layer not recited in the independent claim for Group I, Group V requires an additional layer, Group VI requires aliphatic polyester with specific properties, and so forth for the other Groups.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 18-67 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in Paper No. 7.

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***Claim Rejections - 35 USC § 112***

3. Claim # are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 3, the phrase "highly-polymerized" is vague and indefinite because "highly" is a relative term which is not adequately defined or specified.

In claim 16, the term "unevens" is confusing and unclear. Uneven what?

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by EUROPEAN PATENT APPLICATION 0 750 015 A2 (hereinafter EP '015).

EP '015 discloses a biodegradable resin composition containing 1-200 parts by weight (pbw) polylactone resin and 100 pbw aliphatic polyester resin (lines 44-49, page 5), wherein the

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polylactone resin is polycaprolactone (lines 39-41, page 8), wherein the aliphatic polyester resin is derived from succinic acid and 1,4-butanediol (lines 20-40, page 6) which has been reacted with a diisocyanate (lines 21-38, page 7), and wherein the composition contains fillers such as talc or mica in typical amounts of 60 pbw per 150 pbw of polycaprolactone and polyester (lines 17-20, page 9; lines 24-32, page 10; Example 12) as recited in claims 1-4. The resin composition is suitable for forming a variety of biodegradable articles such as films (lines 26-56, page 9) as recited in claim 5.

6. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by KURODA ET AL (US 5,786,408).

KURODA ET AL discloses a biodegradable resin composition containing 1-200 parts by weight (pbw) polylactone resin and 100 pbw aliphatic polyester resin (lines 58-62, col. 6), wherein the polylactone resin is polycaprolactone (lines 10-18, col. 11), wherein the aliphatic polyester resin is derived from succinic acid and 1,4-butanediol (line 43, col. 7 to line 13, col. 8) which has been reacted with a diisocyanate (lines 20-55, col. 9), and wherein the composition contains fillers such as talc or mica in typical amounts of 60 pbw per 150 pbw of polycaprolactone and polyester (lines 10-26, col. 12; line 63, col. 13 to line 12, col. 14; Example 12) as recited in claims 1-4. The resin composition is suitable for forming a variety of biodegradable articles such as films (lines 27-50, col. 12) as recited in claim 5.

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*Claim Rejections - 35 USC § 103*

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over EUROPEAN PATENT APPLICATION 0 750 015 A2 (hereinafter EP '015) *or* KURODA ET AL (US 5,786,408).

Claims 1-5 are rejected under 35 U.S.C. § 102(b) or 102(e) as being anticipated by EUROPEAN PATENT APPLICATION 0 750 015 A2 (hereinafter EP '015) *or* KURODA ET AL (US 5,786,408) as stated above. However, in the event the claims are not anticipated, the claims are obvious for the following reasons:

EP '015 discloses a biodegradable resin composition containing 1-200 parts by weight (pbw) polylactone resin and 100 pbw aliphatic polyester resin (lines 44-49, page 5), wherein the polylactone resin is polycaprolactone (lines 39-41, page 8), wherein the aliphatic polyester resin is derived from succinic acid and 1,4-butanediol (lines 20-40, page 6) which has been reacted with a diisocyanate (lines 21-38, page 7), and wherein the composition contains fillers such as talc or mica in typical amounts of 60 pbw per 150 pbw of polycaprolactone and polyester (lines 17-20,

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page 9; lines 24-32, page 10; Example 12) as recited in claims 1-4. The resin composition is suitable for forming a variety of biodegradable articles such as films (lines 26-56, page 9) as recited in claim 5.

KURODA ET AL discloses a biodegradable resin composition containing 1-200 parts by weight (pbw) polylactone resin and 100 pbw aliphatic polyester resin (lines 58-62, col. 6), wherein the polylactone resin is polycaprolactone (lines 10-18, col. 11), wherein the aliphatic polyester resin is derived from succinic acid and 1,4-butanediol (line 43, col. 7 to line 13, col. 8) which has been reacted with a diisocyanate (lines 20-55, col. 9), and wherein the composition contains fillers such as talc or mica in typical amounts of 60 pbw per 150 pbw of polycaprolactone and polyester (lines 10-26, col. 12; line 63, col. 13 to line 12, col. 14; Example 12) as recited in claims 1-4. The resin composition is suitable for forming a variety of biodegradable articles such as films (lines 27-50, col. 12) as recited in claim 5.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the resin compositions disclosed in KURODA ET AL or EP '015 to form known biodegradable articles such as gloves, protective sheeting, stakes, or adhesive tapes using conventional forming methods and structures as indicated in claims 6-17 in order to produce useful, readily disposable articles.

9. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over EUROPEAN PATENT APPLICATION 0 750 015 A2 (hereinafter EP '015) *or* KURODA ET AL (US

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5,786,408) as applied to claim 1-5 above, and further in view of JAPANESE PATENT APPLICATION 06-218867 (hereinafter JP '867).

EP '015 and KURODA ET AL as relied upon above.

JP '867 discloses that it is well known in the art to form multilayer protective gloves from biodegradable resins by heat-sealing multiple sheets of biodegradable film into a glove form (Abstract) as recited in claims 6-9.

One of ordinary skill in the art would have utilized the biodegradable blend disclosed in KURODA ET AL and EP '015 to form known protective articles like gloves using conventional methods.

10. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over EUROPEAN PATENT APPLICATION 0 750 015 A2 (hereinafter EP '015) *or* KURODA ET AL (US 5,786,408) as applied to claim 1-5 above, and further in view of JAPANESE PATENT APPLICATION 09-278577 (hereinafter JP '577).

EP '015 and KURODA ET AL as relied upon above.

JP '577 discloses that it is well known in the art to form biodegradable stakes containing fertilizer from biodegradable resins (Abstract) as recited in claims 10-12.

One of ordinary skill in the art would have utilized the blend disclosed in KURODA ET AL and EP '015 to form known biodegradable articles like stakes for agricultural or other uses.



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11. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over EUROPEAN PATENT APPLICATION 0 750 015 A2 (hereinafter EP '015) *or* KURODA ET AL (US 5,786,408) as applied to claim 1-5 above, and further in view of JAPANESE PATENT APPLICATION 07-123876 (hereinafter JP '876).

EP '015 and KURODA ET AL as relied upon above.

JP '876 discloses that it is well known in the art to form mulching sheets from biodegradable resins (Abstract) as recited in claims 13-14.

One of ordinary skill in the art would have utilized the blend disclosed in KURODA ET AL and EP '015 to form known biodegradable articles like protective sheet materials for agricultural use.

12. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over EUROPEAN PATENT APPLICATION 0 750 015 A2 (hereinafter EP '015) *or* KURODA ET AL (US 5,786,408) as applied to claim 1-5 above, and further in view of JAPANESE PATENT APPLICATION 09-266729 (hereinafter JP '729).

EP '015 and KURODA ET AL as relied upon above.

JP '729 discloses that it is well known in the art to form biodegradable tapes with adhesive layers from aliphatic polyester-based resins (Abstract) as recited in claims 15-17.

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One of ordinary skill in the art would have adjusted the surface roughness of the tape as indicate in claim 16 depending on the handling characteristics and visual appearance desired for a given usage.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

IMAMURA ET AL (US 5,616,657) and KOWITZ ET AL (US 6,120,895) and LORCKS ET AL (US 6,218,321) disclose articles formed from biodegradable resins.

JAPANESE PATENT APPLICATIONS 05-199818 and 05-279445 disclose biodegradable aliphatic polyesters reacted with isocyanates.

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivian Chen whose telephone number is (703) 305-3551. The examiner can normally be reached on Monday-Thursday from 8:30 AM to 6:00 PM and on alternate Fridays from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Paul Thibodeau, can be reached on (703) 308-2367.

For Art Unit 1773, the fax phone numbers are as follows:

official faxes:

(703) 305-3601

(703) 305-7718


unofficial faxes:

(703) 305-5436

(703) 305-3602

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 1700 receptionist whose telephone number is (703) 308-0661.

VC  
October 7, 2001

  
Vivian Chen  
Primary Examiner  
Group 1700